OMRON

Manual Insert Hybrid Card Reader	V4BF Series

Compact sized insert magnetic/IC card reader with RS232 interface

- Tabletop design for easy implementation.

- Conforms to EMV specifications.

- Contact landing method ensures longer contact service life.

- Card lock mechanism protects data while communicating with host system.

- Supports transmission protocols T=0 and T=1.

- The communication between a host computer and the card reader is not affected by the various cards which are used.

- One RS232 port handles data from both magnetic and IC cards.

- Two LEDs indicate status set in response to the needs of the user.

I/O Information

Part Number	Track Reading	IC Contact
V4BF–1J–03V	ISO Tracks 1,2 and 3	ISO7816–1 and –2
V4BF–0J–03V	Not available	ISO7816–1 and –2

Specifications

Recommended card type		ISO7810, 7811–1 to –5, 7816–1 and –2
Operating power supply		12V DC ±10% (supplied by AC adapter)
Current consumption		700 mA max.
Interface cable		Available as an option
Ambient temperature	Operation	0° to 45°C
	Storage	–15° to 60°C
Ambient humidity	Operation	30% to 85% RH (without condensation)
	Storage	20% to 90% RH (without condensation)
Vibration endurance		10 to 150Hz, single vibration width 0.15mm or acceleration of 2G 19.6ms^2), whichever is smaller
Shock endurance		196m/s^2 (20G)
Dimensions		88(W) x 158.5(D) x 83.5(H) mm
Weight		Approx. 300g
Service life	Magnetic head	300,000 passes min.
	IC contact	300,000 passes min.
	Solenoid	300,000 passes min.

Card handling: Inserted card is automatically locked and is prevented from being removed, the card is released on command from the host system and automatically ejected to the removal position.

Application Examples

- Electronic purse systems
- ID card checkers
- Medical information systems

I/O Information

Interface method	Conforms to EIA RS232	
	Synchronous mode	Asynchronous mode
	Transmission speed	1200, 2400, 4800, 9600, 19200, 38400 bps
	Communication mode	half duplex
	Synchronising method	Start–stop method
	Data length	8 bits
	Error detection	Even parity

**Note:** Transmission speed is set by "Initial Reset" command after power supply is turned on.

Interface cable	Part Number: V4BF/DF CABLE

Pin assignment (view from PC side)

Pin No.	Signal	Description
1	–	Not connected
2	RXD	Receive data
3	TXD	Transmit data
4	–	Not connected
5	GND	Signal ground
6	DSR	Data set ready
7	RTS	Request to send
8	CTS	Clear to send
9	–	Not connected

Note: Pin 7 and 8 are connected (shorted)

Dimensions

Power SW
Power Connector
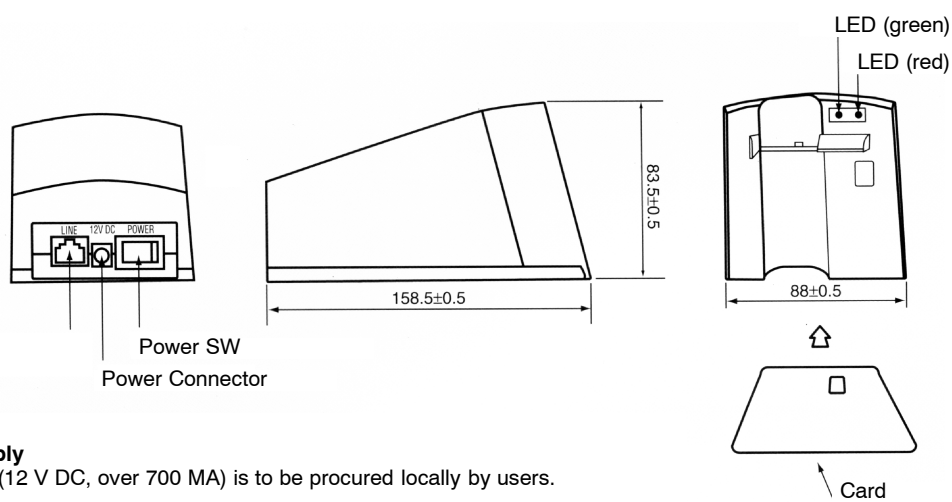
Power Supply
AC adapter (12 V DC, over 700 MA) is to be procured locally by users.

LED (green)
LED (red)

83.5±0.5
158.5±0.5
88±0.5

Card
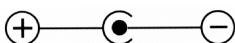
Note: Unless otherwise specified, tolerance is ± 0.3